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NO. 444

Students in Jeopardy: An Agenda for Improving Results in Band-Operated Schools

Reserve schools are failing their students. On-reserve, only four of 10 young adults have completed high school. A reform agenda should envision multiple solutions. It should address national budgeting for reserve schools, emphasize outcomes over inputs, affirm band responsibilities, regionalize INAC's professional capacity, and emphasize incremental over encompassing reforms.

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The Study In Brief

The performance of band-operated, on-reserve schools, while much better than the residential schools they replaced, remains very weak in comparison with provincial schools. Among young adults aged 20-24, nine of 10 non-Aboriginals have at least high school, as do eight of 10 Métis and seven of 10 First Nation living off-reserve. In stark contrast, only four in 10 First Nation young adults living on-reserve graduated from high school.

The most recent attempt to negotiate major reserve school reform was initiated in 2011 by Shawn Atleo, then National Chief of the Assembly of First Nations (AFN), and Chuck Strahl, then Minister of Indigenous and Northern Affairs (INAC). It culminated in April 2014 with the tabling in Parliament of the *First Nations Control of First Nations Education Act* (C-33) and the accompanying federal budget promising significantly increased education funding. However, the bill was not enacted. It fell victim to conflicts within the AFN and to adamant partisan opposition in Parliament.

While Bill C-33 failed, the crisis in reserve schools remains. In this *Commentary*, Barry Anderson and John Richards make the case that the core problem in reserve schools is low-quality results on both core academic and culturally relevant subjects, which in turn lead to low high-school completion rates.

To address this core problem, they outline, at a broad level, the elements of a reform agenda: a feasible strategy to address national budgeting for reserve schools; an emphasis on outcomes over inputs; affirmation of band responsibilities; regionalization of INAC's professional capacity; and an emphasis on incremental as opposed to encompassing reforms.

Each year sees another cohort of students who have passed through a failing system and another new cohort of students entering the same system. Reconciliation and common sense require that improvements be made – and made quickly.

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The performance of band-operated, on-reserve schools, while much better than the residential schools they replaced, remains very weak in comparison with provincial schools.

One explanation is that reserve schools struggle with acute social problems and geographic isolation. Another arises from inadequate school resources and unnecessarily complex administrative relations, with both federal and provincial governments. While policies pursued by First Nations and the federal government over the last half-century have produced improvements relative to the tragedy of residential schools in the first half of the 20th century, they have not lived up to expectations.

1. BACKGROUND

The most recent attempt, at a national level, to negotiate major reserve school reform was initiated in 2011 by Shawn Atleo, then National Chief of the Assembly of First Nations (AFN), and Chuck Strahl, then Minister of Indigenous and Northern Affairs (INAC).[1] It culminated in April 2014 with tabling in Parliament of the *First Nations Control of First Nations Education Act* (C-33) and the accompanying federal budget promising significantly increased education funding.[2]

However, the bill never became law. It fell victim to conflicts within the AFN and to adamant partisan opposition in Parliament. Given the controversy, Atleo chose to resign as National Chief. Thereafter, the government abandoned the bill and withdrew the associated increase in school funding. (For further details on Bill C-33 and its historical context, see Appendix A.)

At the core of Bill C-33 was an attempt to legislate minimum administrative procedures for reserve schools and to encourage First Nations to form the equivalents of provincial school districts. The legislation did not, however, specify clear educational objectives, nor did the budget provide details about allocation of the proposed new funding.

Bill C-33's fate indicates the difficulty of reconciling legislation embodying social policy reform with many First Nation leaders' interpretation of treaty rights, an interpretation sceptical of redesigned school administration or delegation to encompassing institutions. The diversity of viewpoints among First Nation leaders and the often poorly informed positions advanced in Parliament mean that legislating reserve-school reform has become a Sisyphean exercise. A lesson from the ill-fated Bill C-33 is that the path to a better education future for First Nation children should probably avoid comprehensive legislation and instead settle for modest legislative goals – or avoid legislation altogether.

The authors thank several anonymous reviewers and Colin Busby, Senior Policy Analyst at the C.D. Howe Institute, for comments on earlier drafts. We retain responsibility for any errors and for the views expressed.

1 Strahl did not run in the 2011 general election, and hence did not lead the government side in negotiations leading to Bill C-33. The financial details incorporated in the 2014/15 budget were negotiated between Atleo and former Prime Minister Harper. Following the October 2015 general election, the former Ministry of Aboriginal Affairs and Northern Development Canada has been renamed the Ministry of Indigenous and Northern Affairs Canada.

2 Bill C-33 is available at http://www.parl.gc.ca/HousePublications/Publication.aspx?Language=E&Mode=1&DocId=6532106.

Meanwhile, the crisis in Aboriginal education, particularly on-reserve, remains. There will inevitably be further attempts at reform. The next round is more likely to succeed if it focuses on a well-defined problem and allows for multiple pragmatic solutions. The Truth and Reconciliation Commission, which reported in 2015, made recommendations concerning the need to improve on-reserve schools and close the Aboriginal/non-Aboriginal gap in education outcomes (TRC 2015,320-21). While the report makes an eloquent appeal for a fuller acknowledgment by non-Aboriginal Canadians of the trauma created by residential schools, it does not deal with the pragmatic changes likely to reduce education outcome gaps.

In this *Commentary*, we make the case that the core problem in reserve schools is low-quality results on both core academic and culturally relevant subjects, which in turn lead to low high-school completion rates. To address this core problem, we outline, at a broad level, the elements of a reform agenda: a feasible strategy to address national budgeting for reserve schools; an emphasis on outcomes over inputs; affirmation of band responsibilities; regionalization of INAC's professional capacity; and an emphasis on incremental as opposed to encompassing reforms. In Appendix B, we take note of a long list of secondary services required for a modern school system.

A literal reading of federal legislation implies large discretion available to INAC in implementing school reforms. However, given expansive legal interpretation of treaty rights over the last generation and current political convention, the ability of INAC to intervene is limited.[3] The political context is fraught with difficulties for both First Nation chiefs and for cabinet ministers hoping to make a difference. Despite this, government can work with chiefs and bands to nudge reserve schools toward improving student achievement in the core academic subjects of reading, mathematics and science, as well as in Aboriginal languages and cultural studies. Since the content of core academic courses is not culturally specific – albeit, the curriculum should incorporate Aboriginal experience – INAC's influence can be more explicit here than in the domain of cultural studies, where INAC must follow local preferences. Our argument has parallels to that made a generation ago by US management consultant W. Edwards Deming in the context of business: quality improvements typically result from a multitude of small changes that in turn arise from careful analysis of the evidence.

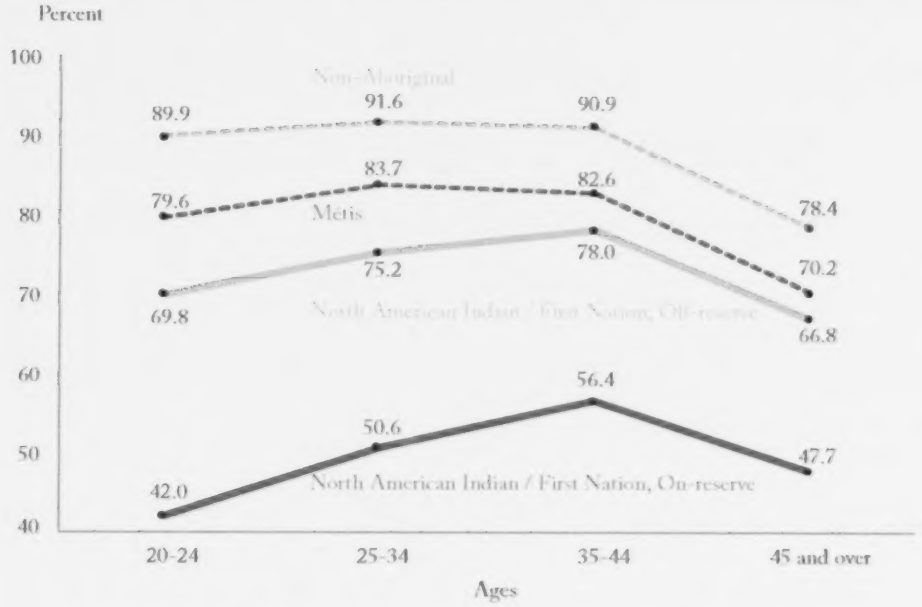
II. The Core Problem

First Nation children with low levels of education face a future plagued by unemployment, poverty, limited social and economic opportunities, crime, health problems and an ongoing reliance on federal and provincial government support for housing. This bleak prospect should make improving education results for on-reserve students imperative for bands, the AFN and the federal government.

High-school completion is a low but crucial rung on the ladder to regular employment. Even though passing final high-school exams is an imperfect symbol of students' knowledge, the certificate itself has become a widely used screen by employers and those responsible for access to further education. It is hard to exaggerate the role of high-school completion in predicting whether a teenager avoids poverty over his or her lifetime. Whether students

3 For an accessible survey of the evolution since 1982 of the Supreme Court interpretation of section 35 of the *Constitution Act*, see Gibson (2009).

Figure 1: High-School Certification or Above (Selected Aboriginal Identity Groups and Non-Aboriginals, by Selected Age Cohorts, 2011)



Source: Authors' calculations from Canada (2013).

are First Nation, Métis or non-Aboriginal, high-school completion increases the probability of being employed by at least 25 percentage points.[4]

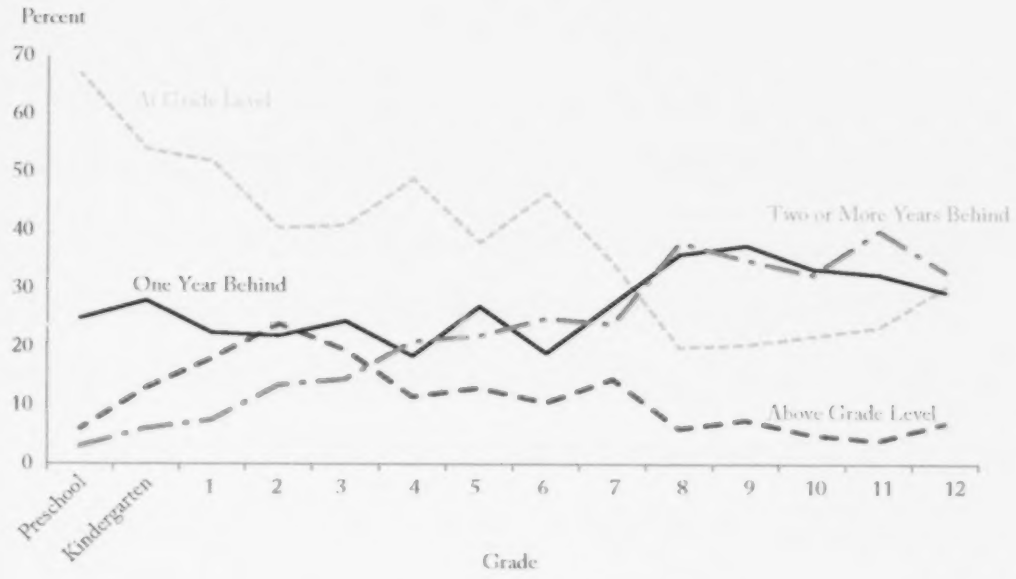
Among young adults aged 20-24, nine of 10 non-Aboriginals have at least high school, as do eight of 10 Métis and seven of 10 First Nation living off-reserve. In stark contrast, only four in 10 First Nation young adults living on-reserve graduated from high school. At higher education levels, the probabilities of employment for the three groups converge – more than 75 percent for those with university degrees.[5]

The best consistent national evidence for on-reserve education results comes from the census (or

4 The change is from the 25-40 percent range to the 50-65 percent range.

5 Data in this paragraph are from the 2011 National Household Survey (NHS). For a more extensive discussion of these data in relation to Aboriginal education and employment, see Richards (2014).

Figure 2: Student Performance in Reading (BC Reserve Schools, 2010/11 and 2011/12)



Source: First Nations Schools Association.

in 2011, the National Household Survey (NHS) that accompanied the census).[6] While the census does not provide the location of respondents' K-12 schooling, their residential location is a useful, if imperfect, proxy for the probable location of primary schooling.[7]

Figure 1, based on 2011 NHS data, shows how high-school completion varies by both identity

6 In addition to bias arising from self-reporting, the 2011 NHS data are biased by their voluntary nature. The federal government in 2011 eliminated mandatory participation in the long-form, 20-percent sample used in previous censuses. The voluntary reporting bias is probably worse among Aboriginals than in the overall population. Probably those Aboriginals most alienated from mainstream Canadian society have lower education levels than the average and are more likely than other Aboriginals not to have participated in the NHS sample. Hence, some unknowable portion of the reported improvement in education levels between the 2006 and 2011 censuses should be attributed to the change in census protocols. The NHS bias is most extreme in highly disaggregated communities where participation was exceptionally low. The 2016 census will restore the mandatory long-form, 20-percent sample.

7 Most First Nation young adults living on-reserve probably received most of their primary schooling there as young children. There are few secondary on-reserve schools and, regardless of location, either on- or-off reserve, most First Nation students who pursued secondary studies probably attended an off-reserve high school.

group and age among all populations. The age cohort 20 – 24 is the youngest tabulation for which it is reasonable to expect high-school completion. Those in the oldest cohort illustrated were born prior to 1965 and if they completed high school, most would have done so before 1980.

Within the non-Aboriginal population, more than one in five of those aged 45 and older did not complete high school. For non-Aboriginal adults below age 45, 90 percent high-school completion has become the norm. The analogous profile for Métis tracks that for non-Aboriginals, but is roughly eight to 10 percentage points lower for all cohorts. While Métis high-school completion rates for younger cohorts have not converged with those for non-Aboriginals, the percentage-point increases for Métis (relative to age 45 and older) have matched the increases for non-Aboriginals.

The story among those identifying as First Nation is more complex. For both on- and off-reserve First Nation, the highest high-school completion rates occur at middle age (the cohort aged 35 – 44). The differences between middle age and young adult (ages 20 – 24) First Nation cohorts are much larger than for Métis and non-Aboriginals.

Nationally, one-half of the population identifying as North American Indian/First Nation live off-reserve. Among them, the middle-age, off-reserve high-school completion rate approaches 80 percent, not far below the analogous statistic for Métis. But for on-reserve First Nation members, the middle-age completion rate is well below 60 percent. More troubling, the completion rate for the age 20 – 24 on-reserve cohort is only slightly above 40 percent. Although this cohort will presumably increase its education credentials as it ages, its present high-school completion rate is below that of its parents' generation (age 45 and older).[8]

With few exceptions, reserve schools yield poor results on basic measures of standard academic performance. Figure 2 compares the reading performance of students attending BC reserve schools to norms for all provincial students. The small improvement in the percentage that reads at grade level after Grade 8 is likely due to dropouts among students with poor reading ability rather than to any increase in reading ability among the cohort that survived to Grade 8.

A troubling conclusion from Figure 2 is that the percentage of on-reserve students who are one or two years behind the provincial norm increases the longer students have been in school. A corollary is that the proportion of students who are at or above grade level falls.[9] While some BC reserve schools do not follow this trend, similar results exist for reserve schools across Canada and US.[10]

Figure 3 illustrates high-school completion rates among young adults living on-reserve in the six provinces from Quebec to BC, according to the 2011 NHS data. Collectively, the six are home to roughly nine of 10 Aboriginal Canadians.[11]

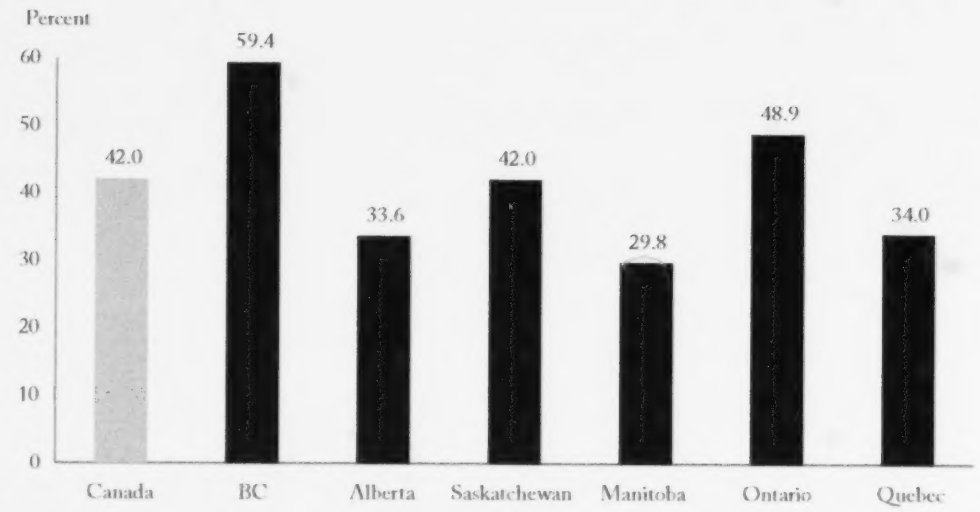
8 Students who complete secondary school are probably more likely to migrate off reserve than those who do not. This complicates interpretation of the census "snapshot" in Figure 1. The increase in education among the on-reserve cohort aged 20–24 in 2011 will probably be higher than that indicated by the difference between on-reserve cohorts currently aged 35–44 and 20–24.

9 The performance norms underlying Figure 2 apply to all students, not just Aboriginal students. It is possible that reserve schools are more effective than off-reserve schools in teaching Aboriginal students.

10 See, for example, a profile of reading by grade in northern Quebec schools (Quebec 2009). See also Demmert and McCardle (2006).

11 There are few locations where there is a watertight division between reserve and provincial schools. First Nation families may migrate on- and off-reserve and, at any time, more than one-third of reserve school-age children living on-reserve are attending a provincial school. Children living on reserve but attending an off-reserve school are primarily those attending secondary school (INAC 2015).

Figure 3: High-School Certification or Above (First- Nation Adults, On-Reserve, Age 20-24, Canada and Selected Provinces, 2011)



Source: Authors' calculations from Canada (2013).

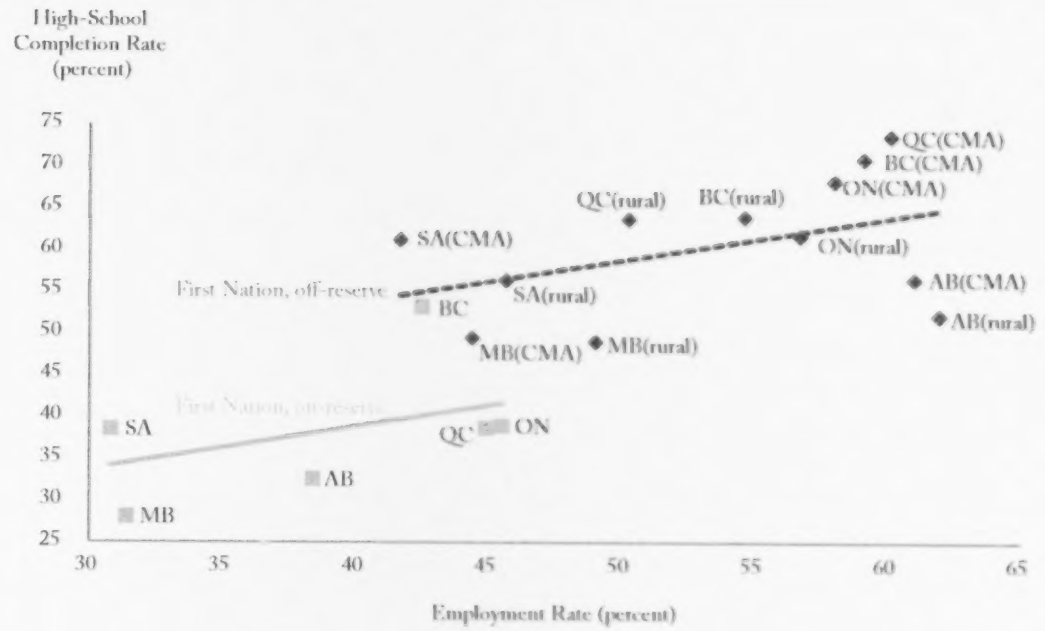
While the completion rate in BC should not invite complacency, it is twice the rate in Manitoba. The dramatic interprovincial differences in completion rates imply that differences in quality of provincial school systems, both on- and off-reserve, are probably part of any explanation. To what extent is this true?

The ideal answer to this question requires a regression analysis on a large national sample of young First Nation adults, identifying a set of relevant socioeconomic factors for each individual and indexing the province and school in which his or her education took place.

The Figure 4 scatterplot illustrates a much cruder analysis, based on 18 First Nation populations defined from tabulated 2006 census data.[12] This exercise involves three defined populations for each of the six provinces: (1) provincial on-reserve; (2) off-reserve living in a census metropolitan area (CMA); and (3) off-reserve living in a non-CMA community.

12 The advantage of 2006 data over 2011 data is that the former are derived from mandatory participation in a 20 percent national sample, whereas the 2011 data are derived from voluntary participation in the NHS.

Figure 4: First-Nation High-School Completion Rates, Ages 20-24, by Overall Employment Rates, 2006



Source: Authors' calculations from Canada (2008a, 2008b).

The scatterplot shows the average high-school completion rate for young adults in each of these 18 First Nation populations and the associated average employment rate (among those in the relevant sub-population, age 15 and over). The employment rate here serves as proxy, in each sub-population, for socioeconomic conditions likely to influence high-school completion.[13] The two trend lines, for on- and off-reserve populations, illustrate projected high-school completion rates by regressing high-

13 See Sharpe et al. (2009) for an analysis of the relative importance of socioeconomic and family characteristics in determining Aboriginal incomes.

school completion rates on employment rates and an index variable to identify on-reserve populations.[14]

We expect a statistically significant positive relationship between the high-school completion rate of young adults and overall employment rate. We also expect that, for a given employment rate, the completion rate will be lower for on-reserve populations. Such are, indeed, the results of the regression. At any given employment rate among those age 15 and older, the high-school completion rate of young-adult on-reserve First Nations is expected to be 15 percentage points below that of an off-reserve population.

The range of employment rates among the 18 populations is large, indicating considerable disparity in average prosperity and projected education levels. For the Manitoba and Saskatchewan on-reserve populations, the employment rate is only slightly above 30 percent. For three off-reserve populations, one in Ontario and two in Alberta, the employment rate exceeds 60 percent.

To the extent the employment rate is a reasonable proxy for socio-economic factors bearing on education outcomes, this exercise provides some justification for interpreting the deviations from trend as a result of differing quality among the relevant schools. (A positive deviation implies the actual high-school completion rate is better than expected; a negative deviation implies inferior performance.) The regression fits the on-reserve populations reasonably well. The major exception is BC, where the actual rate is 13 percentage points above the projection. The off-reserve BC populations are also above projection.

The second largest on-reserve deviation is in Manitoba, where the actual rate is 6.4 points below the projection. The actual high-school completion rates for the two Manitoba off-reserve populations also lie well below projection. In five of the six provinces, Manitoba being the exception, urban areas have higher high-school completion rates than do rural.

In addition to school quality, other unspecified factors matter. For example, the large negative deviations of Alberta off-reserve populations probably reflect the consequences of a provincial resource boom (at the time of the 2006 census). The boom generated an exceptional regional demand for workers, including those without high-school certification. This, in turn, probably lowered expectations among students as to the importance of high-school completion.

III. An Important Aside: Language and Culture

A prerequisite to improving reserve schools is to acknowledge First Nations legitimate distrust of government, rooted in Canada's efforts to dismantle

14 The index variable in the regression takes into account the inherent difficulties of on-reserve students graduating, given their high probability of living in isolated communities and having studied, at least at the primary level, in a small on-reserve school. The regression result is $y = 33.2 + 0.51x_1 - 14.7x_2$, where y is the projected average high-school completion rate among young adults for each population, x_1 is the employment rate among the relevant sub-population age 15 and over, and x_2 is an index variable designating a reserve location. (The adjusted R^2 is 0.67. The employment rate is significant at 5 percent one-tail and the on-reserve index at 1 percent one-tail.) The regression could be re-specified to add an index distinguishing CMA from rural/urban non-CMA populations. Such an index has the expected sign (implying higher CMA than non-CMA completion rates) but is insignificant. The small number of observations means the regression result is far from definitive.

Aboriginal languages and cultures, in particular through residential schools.[15] The First Nations' fundamental rationale for control over reserve schools is their desire to preserve their heritage and indigenous languages. Language and culture programs are closely connected to local history and conditions so, unlike core academic curricula, these courses and programs are usually developed locally.

Our proposal that INAC focus on core academic subjects does not prevent individual First Nations from pursuing language and culture objectives. We expect they will do so. Historically, INAC's education branch has steadfastly refused to fund separately Aboriginal language and culture programs on grounds that INAC's mandate is to fund the teaching of subjects taught in provincial schools. Bill C-33 made reference to funding language and culture, but was vague about what this would mean in practice. Ideally, INAC would negotiate agreements, probably on a school-by-school basis, to fund language and culture services. In doing this it will have to relax the pressure that it exerts on band schools to mimic provincial policies.[16]

Meanwhile, reserve schools should be seeking observable improvement in the results of language and culture programs as much as in core academic subjects. With INAC support for programming that encourages language and cultural studies, bands will have to determine how to deliver these activities and how to demonstrate to themselves and to INAC that the programs are successful.

IV. Action Steps

Without waiting for legislation, INAC, AFN and First Nation councils can act to improve school results quite quickly. We recognize that First Nations desire legislation to protect their treaty rights and ensure appropriate funding for their schools. We recognize also Parliament's need to vote budgets and, finally, we acknowledge that rapid devolution of responsibility and authority can lead to expensive failures. None of the steps we propose require legislation, although it would be wise for government to consider, in due course, a legislative framework. The seven steps discussed below are summarized in Table 1.

Step 1: Fund each school to match provincial spending for similar conditions

The most persistent demand from reserve school leaders is that INAC close the "funding gap" between its per-student funding for reserve schools and provincial per-student funding for comparable students in comparable provincial schools. First Nation advocacy groups, civil servants and competent scholars have all attempted to measure the gap (Drummond and Rosenbluth 2013; Postl 2005). The dilemma in defining the INAC school budget based on closing this gap is the impossibility of defining the gap. There are few provincial schools to use as comparators. Forty percent of reserve schools have fewer than 50 students; more than half have fewer than 100 (Richards and Scott 2009, 60). Over the last two generations, provincial

15 See, for example, the report of the Truth and Reconciliation Commission (TRC 2015). See also the final report of a Senate inquiry on urban Aboriginals "[T]here is a deep mistrust among some Aboriginal people of mainstream educational institutions. The importance of obtaining a good education becomes secondary to what may be perceived as a further assimilative assault on Aboriginal culture, language and traditions. (Canada 2003, s.1.4.)"

16 For example, few on-reserve residents know their indigenous language and hold teaching certificates. As a result, band schools cannot hire teachers who speak the language as long as INAC insists that they have certificates.

Table 1: Improving Results

Step	From: System Maintenance	To: Improving Results
1. Funding	• Annual (some five-year agreements) • Slow response to changing costs • No connection to results • Education budgets compete with other INAC spending • Some funds allocated to INAC-controlled services • No provision for second-level services • Cash flow out of sync with spending • Unanswerable (and unending) complaints about adequacy	• Band school funding reflects size and composition of student body, school size and location, regional costs and service levels tied to intended results. Responds to changes annually • Tuition for provincial school tuition is segregated from other band school costs • Within INAC, education funding is segregated and protected. Bands allowed to lapse unspent funds • Some INAC funds pay for results • Second-level services are funded • Monthly cash flow aligned with school spending • School budgets set with expectation that per student funding exceed provincial levels, probably by a third
2. Focus on Results	• Focus on administration – reports, accounting, data collection and budget • INAC driven • No analysis of school performance • Tacit acceptance of poor performance by INAC (which should know better) and bands (which may not)	• Focus on results • Band-driven, INAC-supported • School results measured, reported and used to plan improvements • High expectations for achievement and improvement • Follow-up to assess students' success after they go to other schools, post-secondary or workplace
3. Clarify Responsibility and Authority	• Bands nominally responsible for schools • Multiple, un-prioritized goals • Goals infrequently "SMART" (Specific, Measureable, Achievable, Relevant and Timely) • Assessments may not be connected to goals • Student results are not aggregated into measures of school goals • Goals and measures are not used as basis for improvement • New processes that may not improve achievement can substitute for goals and be driven by INAC funding (e.g., early-learning services	• Goals to originate with the Band Council and/or collective recommendations of parents • School goals expected to incorporate "SMART" process; small in number (10 or fewer) and used to guide improvement • Clear prioritization of goals, regular assessment of progress and school plans to improve results • Effectiveness of plans reviewed at least annually and used to set the following year's priorities and improvement strategies

Table 1: Continued

Step	From: System Maintenance	To: Improving Results
4. Improve Region and Band Capacities	• Little professional development • High turnover in schools and regional offices	• Regional and school staff heavily involved in setting goals, measures and reporting • School evaluation processes involve staff in assessing successes and planning for improvements
5. Incremental Improvements	• No attention paid to quality of results	• Quality improvement cycles implemented in all regions and band schools • School communities engaged in improvement effort
6. Pay for Improvement	• Funds allocated only to institutions and programs	• Funds allocated to institutions, but program funding rolled into general school support • Separate funding to pay for measured year-over-year improvement in key areas
7. Second-Level Services	• Support is inconsistent • Services not identified • Funding is scraped together from regional funds	• Services are identified • Cost for each service and school is estimated • Funds are allocated to schools to purchase services or to second-level service providers

Source: Authors' compilation.

school systems have closed most such small schools for reasons of scale economies. For small reserve schools, there are almost no "comparable provincial schools" to serve as benchmarks. At a minimum, special provisions need to be made for funding extremely small and extremely remote schools.

A new funding system intended to rebuild trust and get improvement underway need not be complicated or final. Initially, it could concentrate on proper support for school-based operations, such as teacher salaries and student transport, leaving more complicated second-level services, such as specialized teaching personnel, for later budget cycles. With hard work on the part of INAC and First Nations and a cabinet mandate to negotiate up to a higher national budgetary cap, such a system could be implemented for the coming 2016/17 school year. It would be built subject to an aggregate budget target and in such a way that most schools would experience significant increased funding. More on that below.

In some cases, the gap (however defined) is undeniably large. On the other hand, in some cases INAC funding probably exceeds provincial funding. Instead of searching for elusive provincial schools to use as benchmarks, Michael Mendelson of the Caledon Institute of Social Policy poses a more relevant question: "How do you set up a mechanism that will be reliable, that First Nations will have confidence in, that parliamentarians will feel is

adequately accountable and that will ensure parity in the future?" (Drummond and Rosenbluth 2013, 21).

One approach to Mendelson's question is Resource Cost Modeling (Chambers and Parrish 1983). Under this approach, experts would work with INAC and First Nations within each region. They would construct lists of service levels for schools of various sizes and grade levels. The costs associated with each unit of service would be calculated and the total would become a school's fiscal requirement. The actual entitlement, however, would depend on the Parliamentary budget allocation.

A difficult, but surmountable obstacle is obtaining sufficient consensus on the necessary services. Once service levels are agreed upon, it is comparatively simple to work out a fiscal framework that keeps overall costs within some target range. The resulting framework is a financial document, not a statement of how services should be delivered. Schools should be free to re-arrange spending to suit local aspirations and abilities.

A fiscal framework becomes a "living document" subject to pressures to add services along with competing pressures to contain expenditures. Resolving the resulting tensions becomes an ongoing task. It is not simple, but given a clear understanding of how changes in costs and services affect funding, an annual review process could be used to amend the framework and adjust to unanticipated conditions.

We do not presume in this *Commentary* to specify precisely how to eliminate obstacles created by the legacy of the "funding gap" debate. We do, however, offer observations that may be helpful.

A potential way forward exists in the financial agreement struck between former prime minister Stephen Harper and AFN Chief Shawn Atleo, and incorporated in the 2014 budget (Canada 2014, 76). The agreement was, in effect, a signing bonus of $1.9 billion additional INAC education spending, most of it spread over three years, conditional on passage of Bill C-33. The financial agreement had little impact in the 2014 debate over Bill C-33 because it was reached at the 11th hour and there was no indication forthcoming from INAC as to the impact on individual First Nation school budgets.

Based on the 2012/13 INAC education budget for K-12 reserve schools, the financial agreement would have amounted to a 25 percent annual increase for the following three years – an increase presumably to be continued thereafter. If insufficient funding is to be removed as an obstacle to educational improvement, INAC should be prepared to spend in the proposed range incorporated in the 2014 budget. Indeed, our suggestion is that government and chiefs accept as an interim budget an approximate 35 percent premium over average per-student spending in provincial public schools.[17]

The school funding formula need not be finalized when first implemented. In fact, annual refinements and improvements are likely to be necessary for several years. INAC could have the first iteration

17 In 2012/13, INAC budgeted $1.6 billion for funding 113,000 reserve K-12 students in either reserve or nearby provincial schools. This amounts to $14,300 per student. The Statistics Canada estimate of average per-student K-12 funding in provincial schools is $13,300. The most important element in the financial agreement between Atleo and Harper was a $1.25 billion increase in core funding over three years (or $420 million per year). While the formal agreement was for three years, it was a more-or-less ongoing commitment to increase INAC per-student funding by 25 percent (from $14,300 to $18,000). Relative to average 2012/13 provincial per-student funding, the financial agreement would have created a 35 percent premium for average reserve K-12 students ([$18,000 – $13,300]/$13,300) (INAC 2015; Canada 2014, 76; Statistics Canada 2013).

of such a system operating in time for the 2016/17 school year. Eventually, aggregate spending should be the result of criteria, embodied in statute, which define needed on-reserve educational services. Defining these criteria will require several years.

As a further means to make First Nations accountable to Parliament, Bill C-33 would have required First Nations to keep separate education accounts. This makes sense. The *First Nations Financial Transparency Act* requires First Nations to post audited statements online. This requirement should extend to education spending.

An important detail in the "funding gap" debate arises from the fact that some students living on-reserve attend nearby provincial schools to which the relevant First Nation pays tuition. In 2012/13, slightly over one-third of all students living on-reserve attended a provincial school (INAC 2015). At present, INAC funding must cover the operation of band-operated schools as well as tuition costs charged to the band for its students attending provincial schools. First Nations have no control over this component of their education costs and friction between bands and provincial school districts frequently arises over the magnitude of tuition costs charged. We recommend that INAC regional offices negotiate a tuition formula with the relevant provincial education ministry.[18]

Table 1 identifies two more components that should be added to the funding system: (1) supplementary funds to encourage new improvements and results, and (2) separate funds to support second-level services.

Step 2: Focus on results

Today, INAC indirectly attempts to improve the quality of band schools by imposing requirements such as mandatory hiring of certified teachers only, using the provincial curriculum and reporting academic results to INAC using INAC forms. Such mechanisms presume the existence of consensus on goals and the means to attain them, the ability to coordinate by disseminating information, and a predictable set of problems and responses to problems. Little of this characterizes public, let alone reserve, schools (Elmore 2006).

Instead, we advocate much more focus on results and much less on inputs and processes. Continuation of the status quo allows bands to attribute poor performance to INAC.

There is lots of measurement in education – some say too much. But schools generally have neither the time nor the skills to be thoughtful about the relationship between measured results and intended outcomes. They rarely seek the reasons for variation in results. Differences can be understood with questions such as why some students do better than others and what concepts students do or do not understand. Once schools develop a culture of asking such questions and examining outcome measures, they are in a better position to plan. As connections are drawn among plans, instruction and results, school performance will rise.

As Table 2 suggests, focusing on, and assessing progress toward, results need not be complex. Even ongoing review of a few measures will help a school achieve better results for students.

Step 3: Clarify band responsibility and authority

Attaining high-quality results on core academic as well as culturally relevant subjects is difficult for any school. For band schools, it is especially so in the face of the varied and often difficult social

18 In BC, where the provincial education ministry controls tuition rates charged to bands by school districts, there has been some progress on this issue. Even so, tuition charges to First Nations have risen much more quickly recently than INAC funding to bands.

Table 2: An Outline for Assessing Progress

Canada-wide Objective – High Achievement (Task of INAC and AFN)		
Goal	**Metric**	**Information Source**
• Academic success	High-school completion	Band and public school records
• First Nations' language & cultural competence	To be determined	Band records
School Level Drivers (Task of Chief and Band Council supported by INAC))	**Metric**	**Data Sources**
• Operating funding	Per-pupil spending at least comparable to provincial levels	INAC, provincial, school board and band records (depends on province)
• Capital funding	Facilities in adequate condition	INAC records
Effective Schools		
• Strong administrative leadership	Assessment of principal	Performance reports
• High expectations of students	- Statements and practices at each school - Grade-level achievement - Attendance - Successful transition to other schools	School documents Assessment results Missed days Follow-up information
• Orderly atmosphere	Reports and observation	School documents
• Basic skills acquisition as the school's primary purpose	School documents	Observation, surveys of teachers and students
• Capacity to divert school energy and resources from other activities to advance the school's basic purpose	School control over budget priorities.	School budgets, teaching assignments
• Frequent monitoring of pupil progress	Frequency of assessments	Teacher records
• Evidence-based improvement plan	Assessments as a basis for planning	Reports and recommendations
• Teacher quality	Certification and in-service evaluation by principal	Teacher files
• Teacher retention and supply	Turnover rates	Employment records
• Curriculum contains clear scope and sequence, specific measureable learning outcomes, learning resources and appropriate assessments	Existence and use of documents for each subject, including language and culture	Review of records
• Community involvement: parental participation, community financial support, low tolerance for alcohol and drugs, high expectations for children and for healthy pre-natal behaviour by prospective parents.	Metrics for each element	School records

Source: Authors' compilation.

and cultural conditions they face. To deal with this challenge, each school and community should undertake to develop its own plan to improve results.

Clarifying local responsibility for planning and improvement would reinforce the centrality of education in band affairs. It would also avoid one of the important mistakes in the Bill C-33 process. C-33 proposed a framework for school organization with scant reference to education outcomes. As a result, many bands saw the proposed organizational framework as a threat to treaty rights.

Not all bands are able or willing to accept responsibility for education. INAC and provincial education ministries will need to collaborate with one another and with bands to ensure successful transition to full band control. Some bands may wish simply to ensure appropriate links to provincial school districts in order to obtain second-level services.[19]

As time passes, legal, procedural and organizational impediments will inevitably appear. Issues can be addressed as identified, probably without resort to legislation. Agreements involving bands, INAC and provinces, such as BC's successful Tripartite Agreement, are valuable precedents (Strahl and Richards 2012).

Step 4: Improve professional capacity in regions and Bands

One of the features distinguishing Canada from most other OECD countries is the absence of a national education ministry. The strategic decisions made by the provinces are not always wise, but Canadian K-12 education outcomes are almost certainly superior to what they would be were they to depend on centrally designed programs emanating from Ottawa. On the other hand, to the extent strategic planning for reserve schools takes place, it originates in Ottawa – where little education expertise exists. That need not be.

INAC is divided into seven regions (Atlantic Canada plus one per province from Quebec westward). Something analogous to the provincial role in education should take place in INAC's regions, with individual First Nations replacing school boards in exercising jurisdiction over on-reserve schools. To achieve this, the regional INAC offices need the capacity to develop on-reserve leadership that will encourage and support education initiatives originating with First Nations. This implies regional offices with qualified staff empowered to engage with bands as well as with provincial ministries of education. These officials also need to be skilled at providing leadership assistance to diverse and geographically scattered schools.

As Elmore (2006) has noted, the number of people around the world possessing the skills needed to manage a program of school improvement is very limited. INAC should therefore expand its support of professional development among personnel in band-operated schools. Associations such as BC's First Nations Education Steering Committee or First Nations Schools Association as well as Nova Scotia's Mikmaq Kinamatnewey have emerged with INAC support. INAC should strive to create similar agencies throughout Canada.

Professional development does not mean hiring external administrators. INAC and bands should aim at inculcating the skills needed to teach in, and manage improvement of, a school. Hiring

19 We include provincial ministries because a high proportion of on-reserve students attend provincial schools at some point in their school career. Provincial ministries have to be brought into the discussions about improvement as they, too, have to accept responsibility for improving results for on-reserve and other Aboriginal students.

outsiders to do this work will almost inevitably lead to high staff turnover and instability in the schools as staff seek to move to larger school systems that offer more professional stability, income and higher pensions.

In the case of band-operated schools, new personnel are unlikely to remain if poor working conditions prevail. In addition to salaries, and the usual difficulties of teaching, employees of band-operated schools face the vagaries of band politics. There should be less politics and more merit in the hiring and firing of teachers and principals, and there should be more security for teachers. In addition, competitive salaries and isolation bonuses would help stabilize and improve the on-reserve teaching force.

Step 5: Seek incremental improvements to results

Deming (1982, 1994) is an internationally renowned expert on quality improvement in business whose wisdom applies also to education. A central theme of his writing is that quality improvement is incremental and arises from many small, evidence-based changes proposed by an observant and empowered workforce. He had little faith in the pursuit of "silver bullets" sought by a management removed from day-to-day work.

In its simplest form, Deming's approach requires five steps: (1) measure results; (2) *thoughtfully* compare results with expectations; (3) examine variation in results to assess what differentiates desired from undesired outcomes; (4) take action toward improvement and (5) repeat Steps 1 – 4 to ensure improvement is taking place. These steps constitute a quality improvement cycle. When widely practised within an organization, the cycle yields more consistent performance and higher levels of attainment – in other words better quality. Clearly, it is not a simple task to keep an organization focused on improving results. Administrative distractions constantly draw energy away from quality.

Externally defined procedures, programs and reporting are unlikely to improve quality as effectively as local norms, values and controls. This implies that Ottawa-based and managed education programs should be phased out in favour of local plans to monitor and improve student results. Following Thaler, and Sunstein (2008), strategies to "nudge" improvements at on-reserve schools could emerge at the regional level. Regional INAC officials can be expected to have a better understanding of local initiatives than their Ottawa-based colleagues.

If improving results is to become the focus of accountability, everyone in the system involved with a reserve school will have to become engaged. Successful management of improvement must go beyond anything INAC could propose or implement itself, probably also beyond how First Nation leaders currently engage with parents, teachers and band members.

Many First Nation and Métis educators are working to improve results, as are educators in many provincial schools with Aboriginal students. INAC and bands could capitalize on existing efforts by adopting regional policies and processes that enhance schools' capacity to improve themselves.[20] Also, by using existing efforts as practical examples, AFN and INAC could encourage bands and regions to develop incremental improvement programs. They could later encourage other bands

20 One illustration at the school level is provided by recent quality improvement in two Ontario band-operated schools (Geddes 2015). Another, at the provincial level, is provided by BC's annual *How are We Doing?* reports on quality improvement for Aboriginal students.

and regions to participate in, or replicate, successful programs. INAC will need to ensure funding to support regional information sharing is in place, either at schools, in regional organizations such as BC's First Nations Education Steering Committee, or in its own regional offices

Step 6: Pay for improvement

Money is clearly an important attention-getting incentive. INAC should designate a small portion of funding to reward schools for improved results. The main elements of such a program might be:

- Define improvement as "notably better than last year" on a small number of important outcomes (such as completion rate, numeracy, literacy, native language proficiency and cultural heritage comprehension). INAC should ensure that at least one-half of these outcome measures refer to core academic subjects.
- To be eligible for this funding, a First Nation would have to undertake annual assessment of student performance in the selected areas. Adopting the core competency tests of the relevant province, or using a general measure such as high-school completion could do this. But a band could also use other assessments of its own choosing. Year-over-year comparisons of school-level performance would be public (although privacy considerations might trump publication in small schools).
- Small financial rewards would be provided to schools that had improved results year over year. The total amount of the rewards would not exceed 5 percent of normal funding.

Some schools will improve in any given year, but few schools will be able to improve every year. Every school will face a limit when no further improvement is possible. The proposal allows for uneven progress while providing an incentive for schools to improve and a reason for them to obtain and analyze performance information.

The main reason to pay for improvements is that schools are "loosely coupled organizations" (Weick 1982). They lack a tightly controlled hierarchy – both within the school and above the school level – that can direct the work of teachers. There is limited inspection and evaluation by principals and other managers. Teachers usually work in isolation from one another and are reluctant to give one another unsolicited feedback out of respect for professional autonomy.

In addition, teachers have large spans of control over students they do not choose, and school administrators are burdened by administrative tasks that have little or no relationship to student achievement. Financial incentives are one way to keep schools' attention focused on improvement.

Loose coupling has advantages. It allows rapid response to emerging local conditions, and it enables well-motivated teachers to experiment with teaching styles and content. On the other hand, loose coupling makes it next to impossible to implement detailed, centrally developed policies or directions.[21] Loosely coupled organizations need leadership that enables staff to identify problems and find ways to solve them, not management that directs staff along well-defined paths to objectives.

Step 7: Create access to second-level services

Appendix B discusses basic "second-level" services that can be delivered at reasonable cost only when delivered to several schools by one agency. Arranging for these services in the context of standalone band-operated schools is exceptionally difficult. Bill C-33 proposed to provide second-level services by encouraging the creation of First Nation

21 For an example of how local issues can displace public policy, see Weatherly and Lipsky (1977).

equivalents of school districts. This solution should not be ruled out; it can be expected to succeed in some, but certainly not all, contexts.

Provincial education ministries manage second-level services by aggregating schools into school districts and/or by creating service organizations for regions that encompass many schools or even multiple school districts. In public schools, second-level services commonly include the following:

- Technology support, including development and maintenance of wide-area networks that connect schools, teachers and students to each other and the Internet.
- Special education diagnosis and special education services.
- Staff development and in-service training.
- Consulting and advising services.
- Negotiations with INAC and other provincial school systems.
- Legal, accounting and insurance services.
- Facility management and maintenance.
- Grounds maintenance.
- High-cost, low-incidence special education services (for example, one school for the deaf, operated by a school district on behalf of the province, serves all of BC; one special education technology centre provides technology support for all special needs students in BC).
- Transportation management.
- Capital planning.
- Adult education services.
- Student counselling and advising services.
- Provision of low-enrolment courses (such as Grade 12 Physics or Aboriginal Studies), either face-to-face or by distance education.
- School health services, including prevention programs.
- Collective bargaining.
- Volunteer coordination (for example, McKerlich's (2002) proposal to use retired teachers to support band-operated schools).

Once school-level financing has been properly funded, attention should turn to such second-level services. These should be identified, placed in priority order and built into planning and funding cycles as quickly as possible.

Summary and Conclusion

Improved student results in band-operated schools are both a critical and achievable priority. We summarize our argument with the following bullets:

- The key on-reserve education problem where INAC's contribution (primarily via "nudging") can extend beyond funding is in addressing weak academic performance, indicated by low secondary school completion rates and weak results for core academic subjects.
- First Nation schools can and should define additional education goals, such as transmission of cultural heritage and indigenous languages.
- There are many ways to improve outcomes. Selecting solutions that will work in a given school or reserve is the task of local leadership. Research offers some best practices that INAC can systematically make known to local leaders.
- First Nation communities face severe social problems beyond education. But the presence of other problems should not serve as a pretext to defer attention to poor education outcomes.
- INAC initiatives need not require widespread agreement among all First Nations as a prerequisite. What is necessary is that some individual First Nations are willing to move forward – and such innovators exist.
- Regional and local action to improve school quality will encourage the emergence of education leadership in First Nation communities. That said, cultural and geographic differences among First Nations suggest that their leaders will not quickly converge on common definitions of education problems or on their solutions.
- We are confident that most parents living on reserve want their children to succeed in core academic courses. They also want their children to attain other education outcomes, notably an

> ability to retain Aboriginal languages and cultures.

While Strahl and Atleo had honourable intentions, the first conclusion from their initiative is that national legislation prescribing mandatory reserve school organizational standards, however minimal, was a bridge too far. Given the times – widespread First Nations mistrust of INAC, the diversity of local First Nation priorities, internal political conflict within the AFN and ambiguity as to how the promised incremental funding would be allocated – realizing wide First Nation support for Bill C-33 was probably doomed. In contrast, participation in the reforms we propose should be voluntary.

The second lesson from their initiative is that overall reserve school funding has to be increased substantially. For many years, the funding issue has been consistently raised by First Nations at negotiation tables. Bill C-33 and the 2014 budget made clear that even the Conservatives, committed to a smaller federal government, were willing to spend significantly more on reserve schools.

Third, both INAC and First Nations need to acknowledge the importance of setting measurable goals, assessing results annually and planning incremental steps to improve performance in succeeding years. Annual quality-improvement cycles are a valuable basis for progress. Meanwhile, processes such as accreditation, assessments, inspections and teacher in-service development can all be integrated into such cycles, and should be sustained by INAC and First Nations. Administering reserve schools and organizing links between reserve and provincial schools is complex, but there is no need to solve all problems simultaneously.

Fourth, realizing literacy and numeracy goals are important in Canadian schools and are, we believe, widely accepted in First Nation communities. But First Nations have additional objectives. Realizing any education target requires close attention by teachers and school managers. INAC can help willing on-reserve schools become more results oriented. So can chiefs and elders.

The fifth and final lesson from past experience is that INAC and First Nations should actively work with provincial education ministries (as has been done in BC), along with local school districts, to smooth student transitions between band-operated and provincial schools, and to increase attention by provincial schools to the outcomes among First Nations students.

Time is passing. Each year sees another cohort of students who have passed through a failing system and another new cohort of students entering the same system. Reconciliation and common sense require that improvements be made – and made quickly.

APPENDIX A

WHAT WAS THE PROPOSED FIRST NATION CONTROL OF FIRST NATION EDUCATION ACT (BILL C-33) ALL ABOUT?[22]

Ottawa published two major Aboriginal policy reviews in the 1960s. The first, now largely forgotten, was the Hawthorn Report (Canada 1966–67), named for its author, University of British Columbia anthropologist Harry Hawthorn. It insisted that policy not be directed at assimilation – "the research on which the Report is based was not directed to finding ways in which Indians might be assimilated" (vol.1, 10) – but also insisted "that individuals be given the capacity to make choices which include the decision to take jobs away from reserves, play a part in politics, and move and reside where they wish" (vol.1, 10). Central to Hawthorn's vision was expansion of the capacity of individuals, which required high-quality, on-reserve social services. Once healthcare and schools of decent quality were available, Hawthorn predicted, many reserve residents would choose to leave the reserve and participate in mainstream society, as equals with other Canadians. He acknowledged that many would not make that choice and that living on-reserve was an equally valid option.

The second review was the infamous "White Paper" (Canada 1969) presented to Parliament by Jean Chrétien, at the time Indian Affairs minister in Pierre Trudeau's first government. It recommended abolition of the *Indian Act* and phasing out reserves in favour of complete integration of First Nations as equal members of Canadian society. The White Paper served as foil for Harold Cardinal's "Red Paper" (Indian Chiefs of Alberta 1970), an early statement on behalf of indigenous autonomy and an expansive interpretation of treaty rights.

Given the near-universal rejection of the White Paper by First Nation leaders, Ottawa quickly abandoned it and inaugurated instead a strategy of transferring funds to First Nation councils in expectation that they design social programs autonomously. In 1972, the Native Indian Brotherhood, forerunner of the Assembly of First Nations, published "Indian Control of Indian Education," a submission to the minister. It summarized contemporary leaders' expectations with respect to schools:

> The past practice of using the school committee [composed of band members] as an advisory body with limited influence, in restricted areas of the school program, must give way to an education authority with the control of funds and consequent authority which are necessary for an effective decision-making body. The Federal Government must take the required steps to transfer to local Bands the authority and the funds which are allotted for Indian education. (NIB 1972, 30)

Four decades later, in 2011, Shawn Atleo, at the time National Chief of the Assembly of First Nations (AFN), and Chuck Strahl, at the time Minister of Indigenous and Northern Affairs, agreed to a major reform of reserve schools, starting with a joint panel to evaluate the status quo. The report based much of its analysis on the potential for a First Nation "supporting structure" equivalent to that available to provincial schools:

> In the early 1970s, following the dissolution of the residential school system, and the devolution of First Nation education to individual First Nations, virtually no thought was given to the necessary supporting structure for the delivery of First Nation

22 Appendix A is a précis of Richards (2015), a chapter in *State of the Federation, 2013: Aboriginal Multilevel Governance*, Queen's University.

> education. There was no clear funding policy, no service provision and no legislation, standards or regulations to enshrine and protect the rights of a child to a quality education and to set the education governance and accountability framework. (AFN/INAC 2012,9)

In the culminating stages of the reform initiative, AFN leaders and the federal government negotiated legislation titled, not surprisingly, *The First Nations Control of First Nations Education Act* (Bill C-33). It was tabled in Parliament in 2014. The bill was accompanied with a budgetary promise of an additional $1.9 billion for reserve schools, most of it spread over three years (Canada 2014,76).

Bill C-33 provoked intense controversy between Atleo's supporters and opponents in the AFN. It also fell victim to partisan politics in Parliament. Atleo and the government hoped that, in principle, at second reading, all parties would support C-33. Instead, both the Liberals and NDP opposed the bill outright. Less than a month after its tabling, Atleo resigned as National Chief. In response to his resignation, the government decided not to proceed with the bill and simultaneously withdrew the increased education funding promised in the 2014/15 budget.[23]

The bill's authors wanted to create a legislative framework that would require First Nations across Canada to provide clearer lines of authority for professional management of reserve schools and enable creation of larger encompassing education associations. Simultaneously, the bill legislated the principle of comparable per-student funding. The key provisions of C-33 can be summarized as follows:[24]

- **Preamble:** The preamble contained 11 "whereas" clauses that state the dual goals of the legislation as perceived by the AFN national office and INAC. As illustration, one clause refers to the appropriate cultural dimension of First Nation education ("Whereas First Nations children attending schools on reserves must have access to education that is founded on First Nations history, culture and traditional values.") Another clause refers to a curriculum enabling students to acquire competence in core subjects and hence be mobile between school systems ("Whereas First Nations children attending schools on reserves must have access to elementary and secondary education that allows them to obtain a recognized high-school diploma and to move between education systems without impediment.")
- **Creation of a Joint Council of Education Professionals:** Given the evolution of federal policy since the 1970s, the legislative powers of the Minister responsible for Aboriginal affairs are rarely used. Nonetheless, wide ministerial discretion exists. Bill C-33 would have reduced the discretion in the domain of education by creation of a Joint Council, to be composed of an equal number of members appointed by the minister and by "any entity representing the interests of First Nations that is prescribed by regulation (s.12(1))." The expectation was that the "entity" be the AFN. The duties of the Joint Council are ill-defined but open-ended.
- **Enabling First Nation Councils to Delegate Powers to a First Nation Education Authority:** The bill enabled First Nation councils to delegate their education powers to a "body corporate incorporated under federal or provincial legislation if the agreement meets the conditions set out in the regulations (s.27(1))." This enabled councils to create collectively a reserve equivalent of a school district in provincial systems. While instances were expected to be rare, this section also enabled a First Nation council, if it desires, to join a provincial school district.

23 Rennie (2014) offers an account of internal divisions among chiefs on the education reform file.

24 For the parliamentary summary of Bill C-33 see Sineone (2014). For another summary and analysis of Bill C-33 see Mendelson (2014).

- **Specifying Minimum Structure for Schools Run by a First Nation Council:** Bill C-33 required that any council operating schools on its territory on a "standalone" basis meet certain statutory requirements:
  - The council must prepare the school's annual budget and provide the Minister and the Joint Council with a copy (s.21(1)(a)).
  - The council must appoint individuals to three positions (s.35 – s.37): director of education responsible for overall management of education programs; principal responsible for running a school and school inspector to evaluate school programs.
  - The principal must, among other duties, construct a "success plan" stipulating proximate school goals that the principal deems appropriate (s.27(2)).
- **Principle for Statutory Funding:** The bill stipulated that payments to a reserve school must be such as to enable provision of services "of a quality reasonably comparable to that of similar services generally offered in a similarly sized public school [in the relevant province] that is regulated under provincial legislation and is located in an analogous region (s.43(2))." Funding "must include an amount to support the study of a First Nation language or culture as part of an education program (s.43(4))."

APPENDIX B

SECOND-LEVEL SERVICES

Much of the time spent in negotiations between Aboriginals and various government levels over the past 20 years has been devoted to second-level services such as standardized testing, special education, adult education, own-source revenue policy and data systems. Some second-level service issues can be dealt with quickly, provided INAC can obtain the necessary budget. Deciding how they should be delivered is more challenging, and solutions would not immediately contribute to improved school performance.

The following eight items are of a lower priority than the steps outlined in the main text; nonetheless, they are significant and require a consistent policy response.

Extremely Small Schools

Some schools have fewer than five pupils. In such circumstances, provincial school systems either support students to attend distant schools or provide some form of distance learning. There is no rule calling for a minimum enrolment to create or maintain a school, and bands have shown they want to provide schooling regardless of how many students participate.

How very small schools are to be financially and technically supported needs to be worked out. It is surprisingly complicated, since even a few students may be spread across several grades. It will take creative use of reserve residents, distance-education technology and remote professional expertise to meet this challenge.

Extremely Isolated Communities

Bad or non-existent roads, poor weather, extreme distances and rugged terrain conspire to make many First Nation schools very isolated. As a result, the school's role in orienting students to the outside world has little natural local support. Isolation increases per-student capital requirements and costs; it affects the likely demographic future of the community and impacts the school's ability to attract and retain qualified staff. Local knowledge is required to develop service standards and approaches for such communities.

Access to Expertise

How do small, remote schools gain access to outside specialists to assist with teaching functions? For example, when provincial schools enroll a special-needs student, a school psychologist typically assesses the student before additional funds flow to the school to address the need. Qualified psychologists are scarce and costly. This is one of several situations where First Nations could form a support agency to deliver specialized services. INAC should share financial support for such agencies as a way to ensure equitable access to services as well as to control costs.

In-service education or professional development for teachers requires time (often reflected in professional development days in union contracts) and methods of using the time effectively (short courses, workshops, university programs etc.). In many cases, First Nation schools cannot afford the travel expenses associated with these events and bringing experts to the schools can also be very costly. The Internet can play a significant role. It should also be possible for First Nation educators to gain access to professional development offered by nearby school districts and provincial teachers' organizations.

Creativity is required. One example is a proposal to cycle retired teachers through on-reserve schools. Working as volunteers, they would provide teachers and administrators with a variety of short-term supports arranged in such a way that every school would have assistance throughout the school year (McKerlich 2002).

Access to Digital Resources and Services

Every school must have access to high-speed Internet and every student must have up-to-date tools to use it. One-time installation of network connections is a start. Network upgrades and maintenance are an ongoing requirement. Computers and mobile devices also need to be upgraded and maintained.

Network connectivity opens new horizons to all schools, but is especially valuable for those that are remote. Every province's K-12 curriculum is now online, as is a significant amount of self-assessment material. This enables one properly trained generalist teacher to support a wide range of specialized secondary courses. First Nations' teachers and schools can now organize and deliver lessons to other schools and distant students. By doing this, band-operated schools could become providers of online courses to off-reserve Aboriginal students. The Internet also opens the expanding world of online jobs to on-reserve students.

Operations and Maintenance

Operations and maintenance[25] is a catch-all category in school finance accounting. It covers areas such as insurance, utility costs, minor building maintenance, maintenance of grounds, snow removal, repairs and renovations, student transportation and accommodation, teacher housing, legal and accounting fees, computer systems and services, and communications costs.

Using a resource-cost approach, existing spending levels (perhaps using a three-year rolling average) can form a workable starting point for funding operations and maintenance. Inevitably, there will be exceptions. There is potential for unpredictable, and possibly large variations arising from unexpected factors (such as an unusually cold and long winter, sudden increases in costs for insurance or fuel, a new transmission for a school bus, a lawsuit or a union grievance).

Unexpected costs are an acute problem for freestanding individual schools. Their budgets are too small to create financial reserves or allow internal re-arrangement of budgets. Since small freestanding schools have little financial leeway, INAC needs a contingency management system.

Capital for Education

To indicate the complexity of capital budgeting, we summarize the recent Parliamentary Budget Office infrastructure review of BC schools (PBO 2013).[26] Of 116 BC First Nations' operated schools, two-thirds were found to be in "good" or "new" condition, but 12 were in "poor or worse" condition.

Using several scenarios, the PBO estimated incremental capital spending over 15 years (2013/14 to 2028/29) that would be required to realize several goals with respect to school infrastructure. One scenario assumed that, by 2028/29, the age distribution of reserve schools would match the age distribution of provincial schools. This scenario would require an immediate increase of $16 million in annual capital spending relative to the 2013/14 budget, to $43 million. The annual capital spending for this scenario tapers to $33 million by 2028/29. While the proposed immediate increase is more than 50 percent above 2013/14 levels, this is equivalent to only 6 percent of INAC's estimated annual education spending in BC.

25 There is overlap between operations and maintenance and capital spending because spending on repair and renovation prolongs building life. This overlap is important because local officials will frequently defer maintenance in order to shore up some other area of the budget, and thereby increase future costs.

26 BC is home to 12 percent of First Nation on-reserve students receiving K-12 instruction.

The assumptions underlying the PBO calculations are complex. They include demographic projections of K-12 cohorts, estimates of K-12 students studying in provincial schools off-reserve, school capacity utilization rates, maintenance costs and more. As with estimation of comparable per-student operations funding, assessing comparable capital budgeting entails resolving complex issues.[27]

The need to implement a new capital funding arrangement through collaboration is obvious, since only a full and free discussion of what is happening can yield appropriate funding rules. But, as with operations and maintenance budgeting, reaching a better set of capital budgeting guidelines will require expertise, patience and time.

Adult Education

Many adults living on-reserve have not completed secondary education by age 20 (see Figure 1). For them, obtaining high-school equivalency at a later age is an important step toward employment or post-secondary education. School completion should be encouraged as an effort to compensate for poor schooling in the past.

INAC's policy of mimicking provincial rules for adult education excludes many of these adults and is inappropriate for the situation facing First Nations. Indeed, current adult education requirements, both in scale and scope, are significantly different on reserves than for the non-Aboriginal population.

Special Education

We know of no direct measures of special education needs in band-operated schools. However, the incidence in BC provincial schools of special needs among non-Aboriginal students is 5 percent, less than half the 11 percent among Aboriginal students (BC 2014,9).

A special-needs student means more complexities for teachers, for fellow students and for the child. Proper diagnosis of special needs and subsequent provision of appropriate services is costly even in urban school districts where specialist services are available and can be shared among schools. For widely scattered and independently managed on-reserve schools, diagnosis and service provision are more complex and costly.[28] Failure to provide early assistance, ideally before Grade 1, often leads to exacerbated social problems when students reach adulthood. This is yet another hard-to-measure consequence of failure to properly fund education.

Addressing the needs of special-needs children should not be restricted to providing services. Programs aimed at lowering the incidence of preventable special needs among First Nations' students should be a part of education services. For example, fetal alcohol spectrum disorder can destroy the future of children who are born with it, yet is completely preventable. Schools are an important place to deal with such a problem since their students may well be sending *their* children to the school within six or seven years.

27 Integration of capital budgets across INAC programs is an important issue to resolve. At present, INAC reconciles the needs of all of its capital programs within a single budget item. This is done in consultation with First Nations, which have to make difficult choices (new school versus safe drinking water).

28 Provision of special education services on-reserve would be facilitated if INAC more closely matched provincial spending for similar students. When INAC, FNESC and the BC Ministry of Education attempted to define comparable funding for students in on-reserve schools, special education was omitted from the "comparability rule" because, as INAC explained, it did not have the money to change its policy.

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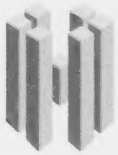

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